

AMENDMENTS TO THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

Claim 1. (currently amended) Sputter ion source, consisting essentially of the components of comprising:

a vacuum-tight housing, containing:

an ionizer (2);

a sputter cathode, comprising:

a cathode (3);

a sputter insert (4); and

a shielding cap;

a forming electrode (5), shielding cap (6) and ;

a cathode ionizer (7) in a vacuum-tight housing, characterized in that a insulator; and

a shielding cathode (1) is disposed hollow cylindrically about the , having a hollow, cylindrical shape, surrounding said sputter cathode, consisting of the components of cathode (3), sputter insert (4) and shielding cap (6), the shielding electrode (1) , and tapering rotationally symmetrically in the region of the a region adjacent to said sputter insert (4).

Claim 2. (currently amended) ~~The sputter Sputter~~ ion source of claim 1,
characterized in that the wherein said shielding electrode (1) is at or
approximately at the is on said housing and has an electric potential of the
substantially the same as an electric potential of said ionizer (2) and located on
the housing.

Claim 3. (currently amended) ~~The sputter Sputter~~ ion source of claim 1,
characterized in that the side of the wherein there is a connection between a
cathode-facing side of said forming electrode (5), facing the cathode (3), is
connected with the and said shielding electrode (1) and the connection between
the front side of the forming electrode (5) and the ionizer (2) is omitted, which
is an only connection of said forming electrode.

Claim 4. (currently amended) ~~The sputter Sputter~~ ion source of claim 1,
characterized in that the wherein said shielding electrode (1) is connected with
the to a coldest part of the said housing.